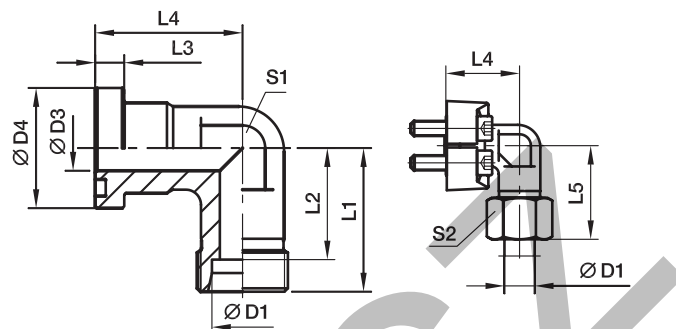


## WFS SAE 90° Elbow flange adapter

SAE Flange / EO 24° cone end  
(ISO 6162-1/-2)



### 3000 PSI Series

| Nom. flange size | D1 <sup>2)</sup> | D3  | D4    | L1   | L2 | L3   | L4  | L5 | S1   | S2 | Bolts   |         | Weight<br>(steel)<br>kg/piece | Order code* | PN<br>(bar) <sup>1)</sup>        |     |     |
|------------------|------------------|-----|-------|------|----|------|-----|----|------|----|---------|---------|-------------------------------|-------------|----------------------------------|-----|-----|
|                  |                  |     |       |      |    |      |     |    |      |    | (metr.) | (unc.)  |                               |             | CF                               | 71  |     |
| 1/2              | 13               | 12S | 12    | 30.2 | 50 | 42.5 | 6.7 | 44 | 58.5 | 22 | 24      | M 08×25 | 5/16×1 1/4                    | 0.24        | <b>WFS32/12S</b>                 | 210 | 210 |
| 1/2              | 13               | 15L | 12    | 30.2 | 36 | 29.0 | 6.7 | 36 | 44.0 | 24 | 27      | M 08×25 | 5/16×1 1/4                    | 0.16        | <b>WFS32/15L</b>                 | 315 | 315 |
| 1/2              | 13               | 16S | 12    | 30.2 | 38 | 29.5 | 6.7 | 36 | 48.0 | 24 | 30      | M 08×25 | 5/16×1 1/4                    | 0.17        | <b>WFS32/16S</b>                 | 350 | 350 |
| 1/2              | 13               | 18L | 12    | 30.2 | 50 | 42.5 | 6.7 | 44 | 59.0 | 22 | 32      | M 08×25 | 5/16×1 1/4                    | 0.20        | <b>WFS32/18L</b>                 | 315 | 315 |
| 3/4              | 19               | 16S | 19    | 38.1 | 64 | 55.5 | 6.7 | 53 | 73.5 | 27 | 30      | M 10×30 | 3/8×1 1/4                     | 0.36        | <b>WFS33/16S</b>                 | 350 | 350 |
| 3/4              | 19               | 18L | 19    | 38.1 | 39 | 31.5 | 6.7 | 42 | 48.0 | 30 | 32      | M 10×30 | 3/8×1 1/4                     | 0.30        | <b>WFS33/18L</b>                 | 315 | 315 |
| 3/4              | 19               | 22L | 19    | 38.1 | 41 | 33.5 | 6.7 | 42 | 50.0 | 30 | 36      | M 10×30 | 3/8×1 1/4                     | 0.28        | <b>WFS33/22L</b>                 | 160 | 160 |
| 3/4              | 19               | 20S | 17    | 38.1 | 43 | 32.5 | 6.7 | 42 | 54.0 | 30 | 36      | M 10×30 | 3/8×1 1/4                     | 0.33        | <b>WFS33/20S</b>                 | 350 | 350 |
| 3/4              | 19               | 25S | 17    | 38.1 | 45 | 33.0 | 6.7 | 42 | 57.0 | 30 | 46      | M 10×30 | 3/8×1 1/4                     | 0.32        | <b>WFS33/25S</b>                 | 350 | 350 |
| 1                | 25               | 20S | 16/23 | 44.5 | 65 | 54.5 | 8.0 | 60 | 77.0 | 34 | 36      | M 10×30 | 3/8×1 1/4                     | 0.55        | <b>WFS34/20S</b>                 | 350 | 350 |
| 1                | 25               | 22L | 18    | 44.5 | 65 | 57.5 | 8.0 | 60 | 74.0 | 34 | 36      | M 10×30 | 3/8×1 1/4                     | 0.53        | <b>WFS34/22L</b>                 | 160 | 160 |
| 1                | 25               | 28L | 25    | 44.5 | 44 | 36.5 | 8.0 | 45 | 53.0 | 36 | 41      | M 10×30 | 3/8×1 1/4                     | 0.41        | <b>WFS34/28L</b>                 | 160 | 160 |
| 1                | 25               | 25S | 20    | 44.5 | 48 | 36.5 | 8.0 | 45 | 57.0 | 36 | 46      | M 10×30 | 3/8×1 1/4                     | 0.52        | <b>WFS34/25S</b>                 | 350 | 350 |
| 1                | 25               | 30S | 24    | 44.5 | 50 | 36.5 | 8.0 | 45 | 63.0 | 36 | 50      | M 10×30 | 3/8×1 1/4                     | 0.48        | <b>WFS34/30S</b>                 | 250 | 250 |
| 1 1/4            | 32               | 35L | 32    | 50.8 | 57 | 46.5 | 8.0 | 50 | 68.0 | 41 | 50      | M 10×35 | -                             | 0.53        | <b>WFS35/35L/10<sup>3)</sup></b> | 160 | 160 |
| 1 1/4            | 32               | 25S | 27    | 50.8 | 55 | 43.0 | 8.0 | 60 | 67.0 | 41 | 46      | M 10×35 | -                             | 0.72        | <b>WFS35/25S/10<sup>3)</sup></b> | 200 | 200 |
| 1 1/4            | 32               | 30S | 28    | 50.8 | 57 | 43.5 | 8.0 | 50 | 70.0 | 41 | 50      | M 10×35 | -                             | 0.67        | <b>WFS35/30S/10<sup>3)</sup></b> | 200 | 200 |
| 1 1/4            | 32               | 38S | 28    | 50.8 | 59 | 43.0 | 8.0 | 50 | 74.0 | 46 | 60      | M 10×35 | -                             | 0.71        | <b>WFS35/38S/10<sup>3)</sup></b> | 200 | 200 |
| 1 1/4            | 32               | 35L | 32    | 50.8 | 57 | 46.5 | 8.0 | 50 | 68.0 | 41 | 50      | M 12×40 | 7/16×1 1/2                    | 0.53        | <b>WFS35/35L</b>                 | 160 | 160 |
| 1 1/4            | 32               | 25S | 27    | 50.8 | 55 | 43.0 | 8.0 | 50 | 67.0 | 41 | 46      | M 12×40 | 7/16×1 1/2                    | 0.72        | <b>WFS35/25S</b>                 | 200 | 200 |
| 1 1/4            | 32               | 30S | 28    | 50.8 | 57 | 43.5 | 8.0 | 50 | 70.0 | 41 | 50      | M 12×40 | 7/16×1 1/2                    | 0.67        | <b>WFS35/30S</b>                 | 200 | 200 |
| 1 1/4            | 32               | 38S | 28    | 50.8 | 59 | 43.0 | 8.0 | 50 | 74.0 | 41 | 60      | M 12×40 | 7/16×1 1/2                    | 0.71        | <b>WFS35/38S</b>                 | 200 | 200 |
| 1 1/2            | 38               | 35L | 30    | 60.3 | 78 | 67.5 | 8.0 | 66 | 83.0 | 50 | 50      | M 12×35 | 1/2×1 1/2                     | 1.36        | <b>WFS36/35L</b>                 | 160 | 160 |
| 1 1/2            | 38               | 42L | 36    | 60.3 | 58 | 47.0 | 8.0 | 55 | 70.0 | 50 | 60      | M 12×35 | 1/2×1 1/2                     | 0.73        | <b>WFS36/42L</b>                 | 160 | 160 |
| 1 1/2            | 38               | 38S | 36    | 60.3 | 64 | 48.0 | 8.0 | 55 | 79.0 | 50 | 60      | M 12×35 | 1/2×1 1/2                     | 0.95        | <b>WFS36/38S</b>                 | 200 | 200 |

<sup>1)</sup> Pressure shown = Item deliverable

<sup>2)</sup> L = light series; S = heavy series

$\frac{\text{PN (bar)}}{10} = \text{PN (MPa)}$

**Delivery without nut and ring.**

**Information on ordering complete fittings or alternative sealing materials see page M12.**

<sup>3)</sup> Order code for the elbow flange adapter assembled with FHS35/10CFX and M10×35 bolts.

See pages M16 and M19 for related flange halves depending on bolt sets.

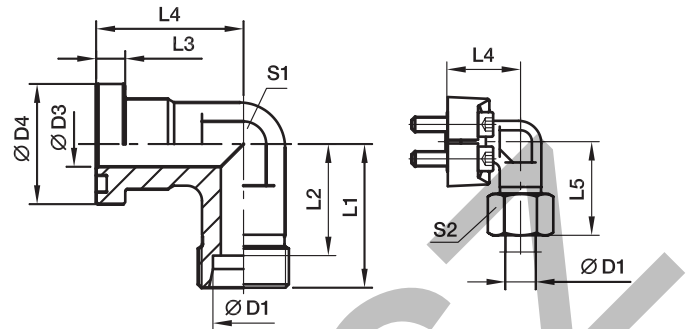
**Stainless steel parts may have dimensional deviations. Additional information on request.**

\*Please add the **suffixes** below according to the material/surface required.

| Order code suffixes             |                             |                             |                                                    |                                                  |                                                         |
|---------------------------------|-----------------------------|-----------------------------|----------------------------------------------------|--------------------------------------------------|---------------------------------------------------------|
| Material                        | Suffix surface and material | Example only flange adapter | Example incl. splitflanges, metr. bolts and O-ring | Example incl. splitflanges, UNC bolts and O-ring | Standard sealing material (no additional suffix needed) |
| Steel, zinc plated, Cr(VI)-free | CF                          | WFS32/16SCFX                | WFS32/16SOMDCF                                     | WFS32/16SOMDCFU                                  | NBR                                                     |
| Stainless steel                 | 71                          | WFS32/16S71X                | WFS32/16SOMD71                                     | -                                                | VIT                                                     |

## WFS SAE 90° Elbow flange adapter

SAE Flange / EO 24° cone end  
(ISO 6162-1/-2)



### 6000 PSI Series

| Nom. flange size |          | D1 <sup>2)</sup> |       |      |    |      |      |    |      |    |    |         | Bolts      |      | Weight (steel) kg/piece          | Order code* | PN (bar) <sup>1)</sup> |  |
|------------------|----------|------------------|-------|------|----|------|------|----|------|----|----|---------|------------|------|----------------------------------|-------------|------------------------|--|
| SAE (in.)        | ISO (DN) |                  | D3    | D4   | L1 | L2   | L3   | L4 | L5   | S1 | S2 | (metr.) | (unc.)     | CF   |                                  |             | 71                     |  |
| 1/2              | 13       | 12S              | 12    | 31.8 | 50 | 42.5 | 7.7  | 44 | 58.5 | 22 | 24 | M 08×30 | 5/16×1 1/4 | 0.22 | <b>WFS62/12S</b>                 | 420         | 420                    |  |
| 1/2              | 13       | 14S              | 12    | 31.8 | 50 | 42.0 | 7.7  | 44 | 59.5 | 22 | 27 | M 08×30 | 5/16×1 1/4 | 0.27 | <b>WFS62/14S</b>                 | 420         | 420                    |  |
| 1/2              | 13       | 16S              | 12    | 31.8 | 38 | 29.5 | 7.7  | 39 | 48.0 | 24 | 30 | M 08×30 | 5/16×1 1/4 | 0.19 | <b>WFS62/16S</b>                 | 420         | 420                    |  |
| 3/4              | 19       | 16S              | 17    | 41.3 | 45 | 36.5 | 8.7  | 48 | 55.0 | 32 | 30 | M 10×35 | 3/8×1 1/2  | 0.42 | <b>WFS63/16S</b>                 | 420         | 420                    |  |
| 3/4              | 19       | 20S              | 17    | 41.3 | 46 | 35.5 | 8.7  | 48 | 57.0 | 32 | 36 | M 10×35 | 3/8×1 1/2  | 0.42 | <b>WFS63/20S</b>                 | 420         | 400                    |  |
| 3/4              | 19       | 25S              | 17    | 41.3 | 48 | 36.0 | 8.7  | 48 | 60.0 | 32 | 46 | M 10×35 | 3/8×1 1/2  | 0.46 | <b>WFS63/25S</b>                 | 420         | 400                    |  |
| 1                | 25       | 20S              | 16    | 47.6 | 65 | 54.5 | 9.5  | 62 | 75.0 | 34 | 36 | M 12×45 | 7/16×1 3/4 | 0.60 | <b>WFS64/20S</b>                 | 420         | 400                    |  |
| 1                | 25       | 25S              | 20    | 47.6 | 53 | 41.0 | 9.5  | 60 | 65.0 | 41 | 46 | M 12×45 | 7/16×1 3/4 | 0.74 | <b>WFS64/25S</b>                 | 420         | 400                    |  |
| 1                | 25       | 30S              | 25    | 47.6 | 55 | 41.5 | 9.5  | 60 | 68.0 | 41 | 50 | M 12×45 | 7/16×1 3/4 | 0.64 | <b>WFS64/30S</b>                 | 420         | 400                    |  |
| 1 1/4            | 32       | 25S              | 25    | 54.0 | 72 | 60.0 | 10.2 | 70 | 84.0 | 42 | 46 | M 12×50 | 1/2×1 3/4  | 1.06 | <b>WFS65/25S/12<sup>3)</sup></b> | 420         | 400                    |  |
| 1 1/4            | 32       | 30S              | 30    | 54.0 | 58 | 44.5 | 10.2 | 68 | 71.0 | 46 | 50 | M 12×50 | 1/2×1 3/4  | 0.88 | <b>WFS65/30S/12<sup>3)</sup></b> | 420         | 400                    |  |
| 1 1/4            | 32       | 38S              | 30    | 54.0 | 72 | 56.0 | 10.2 | 70 | 87.0 | 46 | 60 | M 12×50 | 1/2×1 3/4  | 0.93 | <b>WFS65/38S/12<sup>3)</sup></b> | 420         | 315                    |  |
| 1 1/4            | 32       | 25S              | 20/28 | 54.0 | 72 | 60.0 | 10.3 | 70 | 84.0 | 42 | 46 | M 14×50 | -          | 1.06 | <b>WFS65/25S</b>                 | 420         | 400                    |  |
| 1 1/4            | 32       | 30S              | 30    | 54.0 | 58 | 44.5 | 10.2 | 68 | 71.0 | 46 | 50 | M 14×50 | -          | 0.88 | <b>WFS65/30S</b>                 | 420         | 400                    |  |
| 1 1/4            | 32       | 38S              | 30    | 54.0 | 72 | 56.0 | 10.2 | 70 | 87.0 | 46 | 60 | M 14×50 | -          | 0.93 | <b>WFS65/38S</b>                 | 420         | 315                    |  |
| 1 1/2            | 38       | 30S              | 25    | 63.5 | 76 | 63.5 | 12.5 | 77 | 90.0 | 50 | 50 | M 16×55 | 5/8×2 1/4  | 1.75 | <b>WFS66/30S</b>                 | 420         | 400                    |  |
| 1 1/2            | 38       | 38S              | 32    | 63.5 | 84 | 68.0 | 12.5 | 80 | 99.0 | 50 | 60 | M 16×55 | 5/8×2 1/4  | 1.46 | <b>WFS66/38S</b>                 | 420         | 315                    |  |

<sup>1)</sup>Pressure shown = Item deliverable

<sup>2)</sup>S = heavy series

$$\frac{\text{PN (bar)}}{10} = \text{PN (MPa)}$$

Delivery without nut and ring.  
Information on ordering complete fittings  
or alternative sealing materials see page M12.

<sup>3)</sup> Order code for the elbow flange adapter assembled with FHS65/12CFX and M12×50 bolts.

See pages M16 and M19 for related flange halves depending on bolt sets.

Stainless steel parts may have dimensional deviations. Additional information on request.

\*Please add the suffixes below according to the material/surface required.

| Order code suffixes             |                             |                             |                                                    |                                                  |                                                         |
|---------------------------------|-----------------------------|-----------------------------|----------------------------------------------------|--------------------------------------------------|---------------------------------------------------------|
| Material                        | Suffix surface and material | Example only flange adapter | Example incl. splitflanges, metr. bolts and O-ring | Example incl. splitflanges, UNC bolts and O-ring | Standard sealing material (no additional suffix needed) |
| Steel, zinc plated, Cr(VI)-free | CF                          | WFS62/16SCFX                | WFS62/16SOMDCF                                     | WFS62/16SOMDCFU                                  | NBR                                                     |
| Stainless steel                 | 71                          | WFS62/16S71X                | WFS62/16SOMD71                                     | -                                                | VIT                                                     |